

12 Basic Functions Scavenger Hunt

On a separate sheet of paper, find the following:

1. Seven of the twelve basic functions have the property that $f(0) = 0$. Which five do not?
2. Identify the four basic functions that are odd.
3. How many of the twelve basic functions are even? List them.
4. Identify the six basic functions that are increasing on their entire domains.
5. Identify the three basic functions that are decreasing on the interval $(-\infty, 0)$.
6. Only 3 of the twelve basic functions are bounded. Which three?
7. Which of the twelve basic functions are not continuous? Identify the types of discontinuity in each function.
8. Identify the three basic functions with no zeros.
9. How many of the twelve basic functions have a range of all real numbers? List them.
10. How many of the twelve basic functions look the same when flipped about the y-axis? List them.
11. How many of the twelve basic functions look the same upside down as right-side up? List them.
12. How many of the twelve basic functions are bounded below? List them.